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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/465,038	12/16/1999	RONALD THOMAS KEEN	RCA89605	8392

7590

03/29/2005

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EXAMINER
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YENKE, BRIAN P

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/465,038

Applicant(s)

KEEN, RONALD THOMAS

Examiner

BRIAN P. YENKE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Response (15 Dec 04).
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,25 and 26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 25-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Applicant's arguments filed 15 Dec 04 have been fully considered but they are not persuasive.

#### ***Applicant's Arguments***

a) Regarding independent claim 1, the applicant states that Martinez only teaches that the viewer's response digital data rate must equal an odd harmonic of one-half the standard TV horizontal scan rate and Henderson only teaches the use of a phase locked loop tuner having a reference frequency that is an odd harmonic of one-half the horizontal scanning rate and a harmonic of the vertical scanning rate.

#### ***Examiner's Response***

a) The examiner disagrees. Martinez discloses all the limitations of the invention, except the rounding of the calculated frequency. Thus the examiner incorporated Henderson which teaches that the rounding of a frequency value (obtaining a integer value) does not require a fractional divider and thus provides a less complex and cheaper alternative to fractional (i.e. non-rounded frequencies). Thus the examiner's position is the mere rounding of a frequency number, which is all that is not explicitly disclosed by Martinez is not a patentably distinct feature, since the rounding of a frequency number is a notoriously well-known option/choice in designing a system.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious

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at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 25-26 rejected under 35 U.S.C. 103(a) as being unpatentable over Martinez, US 5,812,184 in view of Henderson et al., US 4,106,059.

In considering claims 1 and 25-26

a) *the claimed determining if said artifact...* Martinez discloses a system, which places additional data over a video signal, where the video/data signal can be processed and eliminating any effects from the data signal on the video presented. Martinez discloses a receiver 49 (Fig 7) of TRM 22 (Fig 5) where the selected frequency signal is sent to compressed video detector 50 and uncompressed to NTSC block 52 (Fig 7

b) *the claimed calculating a value for the frequency of said periodic signal...* To properly cancel the effect of the additional data or any alien signal superimposed upon the waveform pedestal, the rate of the additional data must equal an odd harmonic of one-half the standard TV horizontal scan rate (col 9, line 28-48 and col 13, line 42-55) to visually cancel, and thus eliminate the artifact.

d) *the claimed setting said frequency of said periodic signal* is met by Martinez which discloses that any signal (in addition to video signal) that resides on the periodic video pedestal of 15,734 Hz which is intended to visually cancel must possess a fundamental frequency which an odd multiple of one-half the television horizontal (H-scan) frequency. An example given is the NTSC chrom-subcarrier of 3.579545 MHz is an odd multiple of one-half the horizontal scan rate, a multiple equal to 455. Thus any known frequency signal that is effecting the video passband of the video signal, as in the NTSC standard, can be eliminated/reduced. The component frequencies of the luminance

signal are concentrated near a horizontal scanning frequency  $f_h$  and the higher harmonics  $nf_h$ , whereas the component frequencies of the chrominance signal are concentrated in odd harmonics of  $\frac{1}{2} f_h$ .

However, Martinez does not specifically disclose rounding (c) *the claimed rounding the calculated value*. Martinez discloses the elimination of the data-over any alien signal imposed on a video signal by eliminating the odd harmonic of  $\frac{1}{2}$  the horizontal frequency. The horizontal scan frequency of the NTSC video signal is 15,734.26573 Hz, thus by selecting  $(n \times \frac{1}{2} \times 15,734.26573)$  an odd harmonic (i.e.  $n = 5$ ) of  $\frac{1}{2}$  of the horizontal frequency results in a calculated frequency of approximately 39.336 kHz.

It is also noted by the examiner that the applicant's own disclosure, merely states in one sentence (page 3, line 23-26) "Thus, the particular selection of frequency of the interfering modulation signal of the spread spectrum clock was 39.336 kHz (2.5 multiplied by  $f_h$ ), which can be rounded up or down to the nearest integral kHz of 39 kHz or 40 kHz".

The examiner incorporates Henderson, which discloses a phase lock loop television tuning system which removes the effects/artifacts created by an unfiltered component of the local oscillator signal by generating a reference signal that has a frequency related to the predetermined scanning rates of the video signal (col 3, line 1-12).

Henderson discloses that the color subcarrier which is 3.58 Mhz (from 3.5795...Mhz) of the NTSC signal (calculated by  $455 \times \frac{1}{2} \times$  approximately 15,734 Hz)

introduces a problem when deriving the reference frequency of the phase locked loop since there is no integer divider which may be used to convert the color subcarrier frequency to an odd submultiple of the horizontal line scanning rate. Henderson remedies this problem by obtaining integer frequencies, since a divider which divides by fractional divisors are relatively complex and therefore relatively expensive.

Therefore, the examiner's position is it would have been obvious to one of ordinary skill in the art at the time to modify Martinez which discloses the visual cancellation of any alien signal superimposed upon the NTSC by rounding the calculated number (either up or down) to an integer number, in order to provide a relatively simple/inexpensive method of generating the signal via non-fractional dividers as performed by Henderson.

### ***Conclusion***

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Yenke whose telephone number is (571)272-7359. The examiner work schedule is Monday-Thursday, 0730-1830 hrs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John W. Miller, can be reached at (571)272-7352.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314**

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703)305-HELP.

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800-PTO-9199 or 703-308-HELP

(FAX) 703-305-7786

(TDD) 703-305-7785

An automated message system is available 7 days a week, 24 hours a day providing informational responses to frequently asked questions and the ability to order certain documents. Customer service representatives are available to answer questions, send materials or connect customers with other offices of the USPTO from 8:30 a.m. - 8:00p.m. EST/EDT, Monday-Friday excluding federal holidays.

For other technical patent information needs, the Patent Assistance Center can be reached through customer service representatives at the above numbers, Monday through Friday (except federal holidays) from 8:30 a.m. to 5:00 p.m. EST/EDT.

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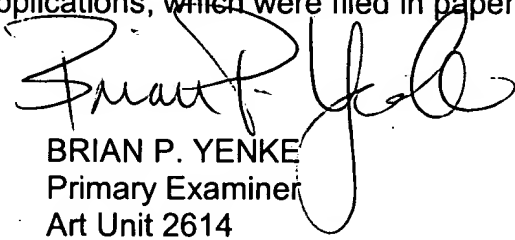
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submissions in extensible Markup Language (XML) format and to assemble the various parts of the application as an electronic submission package. EFS also allows the submission of Computer Readable Format (CRF) sequence listings for pending biotechnology patent applications, which were filed in paper form.



B.P.Y.

26 March 2005



BRIAN P. YENKE  
Primary Examiner  
Art Unit 2614